

**§ 23.2 Definitions.**

(a) *Adequate* means appropriate and sufficient, as determined by mutual agreement of the manufacturer, operators, and MSHA.

(b) *Approval* means official notification by letter, from MSHA to a responsible organization, stating that the device under consideration has been judged to meet the requirements of this part.

(c) *Normal operation* means the performance by each part of the device of those functions for which the part was designed.

(d) *Permissible* as used in this part means completely assembled and conforming in every respect with the design formally approved by MSHA under this part. (Approvals under this part are given only to equipment for use in gassy and dusty mines.)

(e) *Protected* means effectively covered, enclosed, or otherwise guarded by adequate covers.

(f) *Signaling device*. As used in this part, a signaling device is one that gives visual or audible signals.

(g) *MESA* means the United States Department of the Interior, Mining Enforcement and Safety Administration. Predecessor organization to MSHA, prior to March 9, 1978.

(h) *MSHA* means the U.S. Department of Labor, Mine Safety and Health Administration.

NOTE: Paragraph (f) of this section is issued under the authority of Sec. 101 of the Federal Mine Safety and Health Act of 1977, Pub. L. 91-173 as amended by Pub. L. 95-164, 91 Stat. 1291 (30 U.S.C. 811). All other paragraphs in this section continue under the original authority.

[Sched. 9B, 4 FR 1555, Apr. 11, 1939, as amended by Supp. 1, 20 FR 2975, May 4, 1955; 39 FR 24001, June 28, 1974; 43 FR 12315, Mar. 24, 1978; 47 FR 11370, Mar. 16, 1982]

**§ 23.3 Applications.**

Before MSHA will undertake the active investigation leading to approval of any telephone or signaling service, the manufacturer shall make application by letter for an investigation leading to approval of his device. This application in duplicate, accompanied by a check, bank draft, or money order, payable to the U.S. Mine and Safety and Health Administration, to cover

all the necessary fees, shall be sent to Approval and Certification Center, Box 201B, Industrial Park Road, Dallas Pike, Triadelphia, W. Va. 26059 together with the required drawings, one complete telephone or signaling device, and instructions for its operation.

[Supp. 1, 20 FR 2975, May 4, 1955, as amended at 43 FR 12315, Mar. 24, 1978; 47 FR 14696, Apr. 6, 1982; 60 FR 33723, June 29, 1995]

**§ 23.4 [Reserved]**

**§ 23.5 Conditions governing investigations.**

(a) One complete device together with assembly and detail drawings that show its construction and the materials of which the parts are made, shall be submitted preferably at the time the application for test is made. These shall be sent prepaid to Approval and Certification Center, Box 201B Industrial Park Road, Dallas Pike, Triadelphia, W. Va. 26059.

(b) After the device has been inspected by MSHA, the applicant will be notified as to the amount of material that he will be required to supply for the tests and of the date on which testing will be started.

(c) *Observers at formal investigations and demonstrations*. No one shall be present during any part of the formal investigation conducted by MSHA which leads to approval for permissibility except the necessary Government personnel, representatives of the applicant, and such other persons as may be mutually agreed upon by the applicant and MSHA. Upon granting approval for permissibility, MSHA will announce that such approval has been granted to the device and may thereafter conduct, from time to time in its discretion, public demonstrations of the tests conducted on the approved device. Those who attend any part of the investigation, or any public demonstration, shall be present solely as observers; the conduct of the investigation and of any public demonstration shall be controlled by MSHA. Results of chemical analyses of material and all information contained in the drawings, specifications, and instructions shall be deemed confidential and their disclosure will be appropriately safeguarded by MSHA.

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(d) Formal tests will not be made unless the device has been completely developed and is in a form that can be marketed.

(e) The results of the tests shall be regarded as confidential by all present at the tests and shall not be made public in any way prior to the formal approval of the device by MSHA.

(f) No verbal report of approval or disapproval will be made to the applicant. After MSHA has considered the results of the inspections and tests, a formal written report of the approval or disapproval will be made to the applicant by MSHA. The applicant shall not advertise his device as being permissible or approved, or as having passed the tests, prior to receipt of the formal notice of approval.

[Sched. 9B, 4 FR 1555, Apr. 11, 1939, as amended by Supp. 1, 20 FR 2975, May 4, 1955; 43 FR 12315, Mar. 24, 1978]

### § 23.6 General requirements for approval.

Telephones and signaling devices shall be durable in construction, practical in operation, and suitable for conditions of underground service. They shall offer no probable explosion hazard under normal operation if use in gassy or dusty mine atmospheres.

### § 23.7 Specific requirements for approval.

(a) The circuits external to telephones and signal devices shall be intrinsically safe; that is, the electrical design and construction of telephones and signal devices shall be such that neither contact between wires comprising the external circuits nor contact of tools or other metal objects with external terminals and circuits will result in electrical sparks capable of igniting explosive methane-air mixtures (or such mixtures with coal dust in suspension) during normal operation of the telephones or signal devices.

(b) All parts which, during normal operation, are capable of producing sparks that might ignite explosive methane-air mixtures shall be enclosed in explosion-proof compartments. All openings in the casings of such compartments shall be adequately protected. It is desirable that openings be as few as possible. All joints in the cas-

ings of an explosion-proof compartment shall be metal-to-metal so designed as to have a width of contact, measured along the shortest path from the inside to the outside of the compartment, of not less than 1 inch if the unoccupied volume (air space) in the compartment is more than 60 cubic inches. For unoccupied volume of 60 cubic inches or less, a  $\frac{3}{8}$ -inch width of contact will be acceptable.

(c) All bolts and screw holes shall be “blind” or bottomed if the omission of a bolt or screw would otherwise leave an opening into the compartment. An adequate lock or seal shall be provided to prevent tampering and exposure of spark-producing parts by unauthorized persons.

(d) Battery cells shall be placed in an explosion-proof compartment or else in one that is locked or sealed, and the terminals and the connections thereto shall be so arranged and protected as to preclude meddling, tampering, or making other electrical connections with them.

(e) Manufacturers shall furnish adequate instructions for the installation and connection of telephones and signal devices in order that the safety of these devices and other circuits shall not be diminished by improper installation. MSHA reserves the right to require the attachment of wiring diagrams to the cases of telephones and signal devices.

(f) If electric light bulbs are used in signaling devices, they shall be either equipped with effective safety devices, such as are required for permissible electric mine lamps,<sup>1</sup> or enclosed in explosion-proof compartments.

(g) Line powered telephones and signaling devices or systems shall be equipped with standby power sources that have the capacity to enable the devices or systems to continue functioning in the event the line power fails or is cut off. Manufacturers shall furnish instructions for the proper maintenance of standby power sources.

NOTE: Paragraph (g) of this section is issued under the authority of Sec. 101 of the Federal Mine Safety and Health Act of 1977, Pub. L. 95-173 as amended by Pub. L. 95-164,

<sup>1</sup> In this case, the requirements of the current schedule for mine lamps will apply.